



Joint Program Executive Office for Chemical and Biological Defense

Joint Project Manager for Collective Protection

# Platform Survivability Integration (PSI) for Chemical Biological Radiological (CBR) Defense

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## Briefing Topics

- **Expanded Role of the Joint PM-Collective Protection**
  - Platform Survivability Integration (PSI) for CBR Defense
- **Joint Strike Fighter (JSF) Decontamination System**





# **CBRN Survivability Policy**

## **DOD Instruction 3150.09 – September 2008**

- **Requires all DoD CBRN mission-critical systems be CBRN survivable**
  - **Mission-critical systems with operational concepts requiring employment and survivability in a CBR environment or a nuclear environment**
- **Requirements must be addressed in the capabilities documents and reviewed at each milestone**



# JPM-ColPro/PSI Mission

**The Joint Project Manager for ColPro/Platform Survivability and Integration (PSI) Chemical Biological Radiological (CBR) Defense Support will facilitate the research, development, testing, procurement, operations and sustainment, and delivery of CBRN defense system of systems in support of platforms designated as CBRN Mission Critical and those requiring CBRN capabilities.**



# CBRN Support

## Increasing Equipped Platforms...



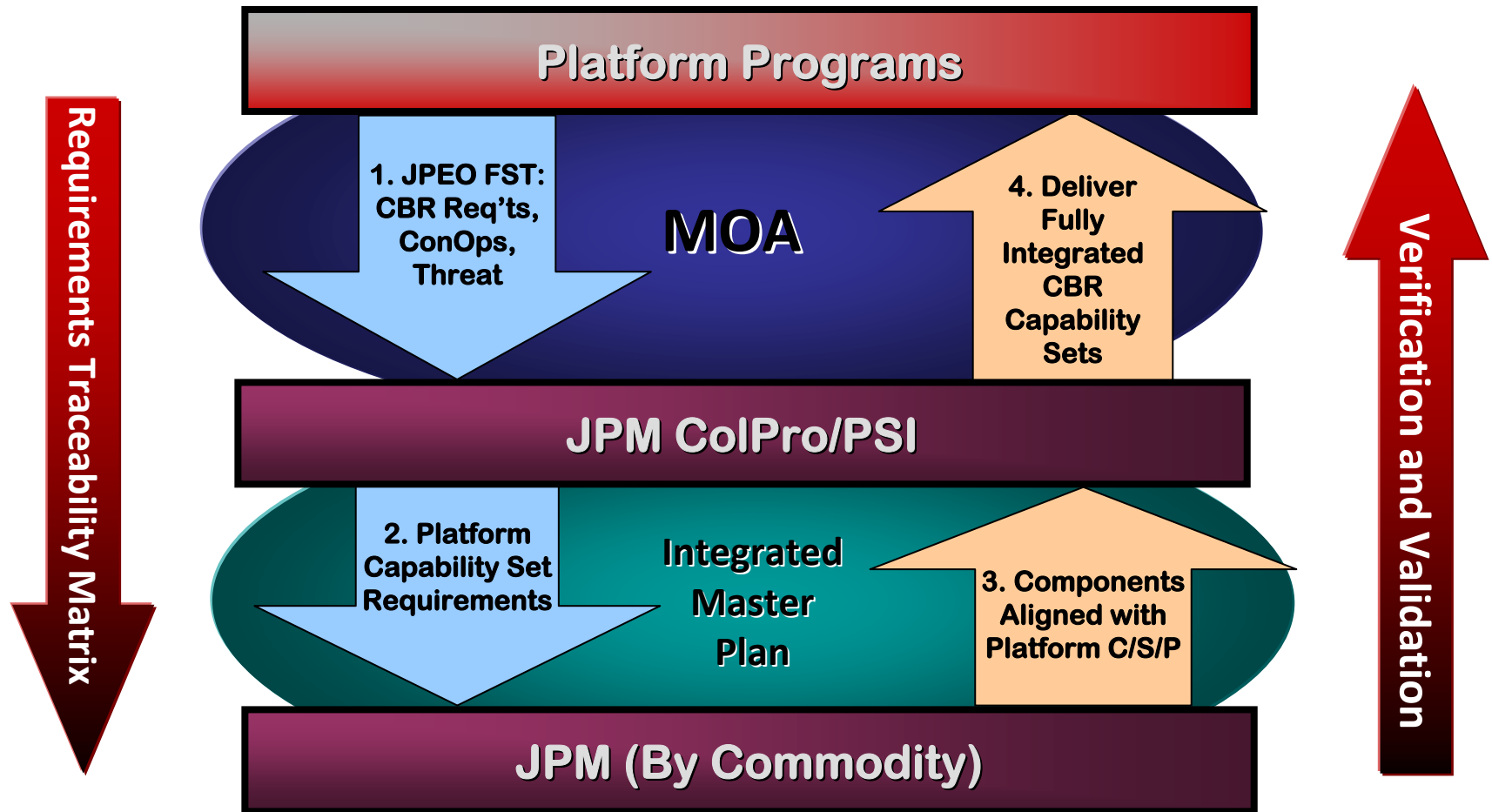
- Improved Surveillance
- Enhanced Situational Awareness

**MAXIMIZE CBR DETECTION  
AND EARLY WARNING**

**Integrate CBR defense systems as part of design and development**



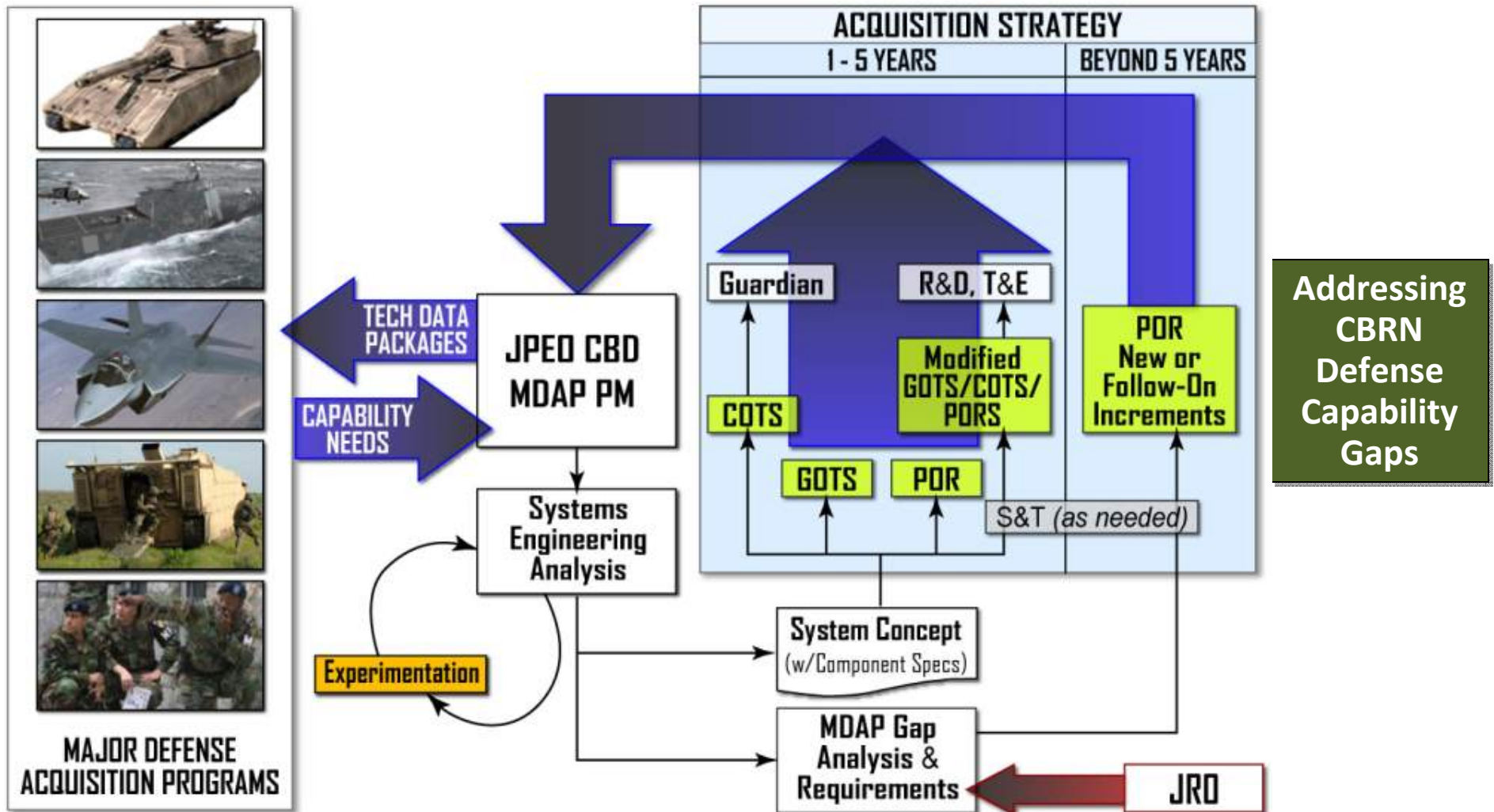
# JPM ColPro/PSI Support Function



Deliver CBR Capability Sets to Support  
MDAP CBRN Survivability Needs



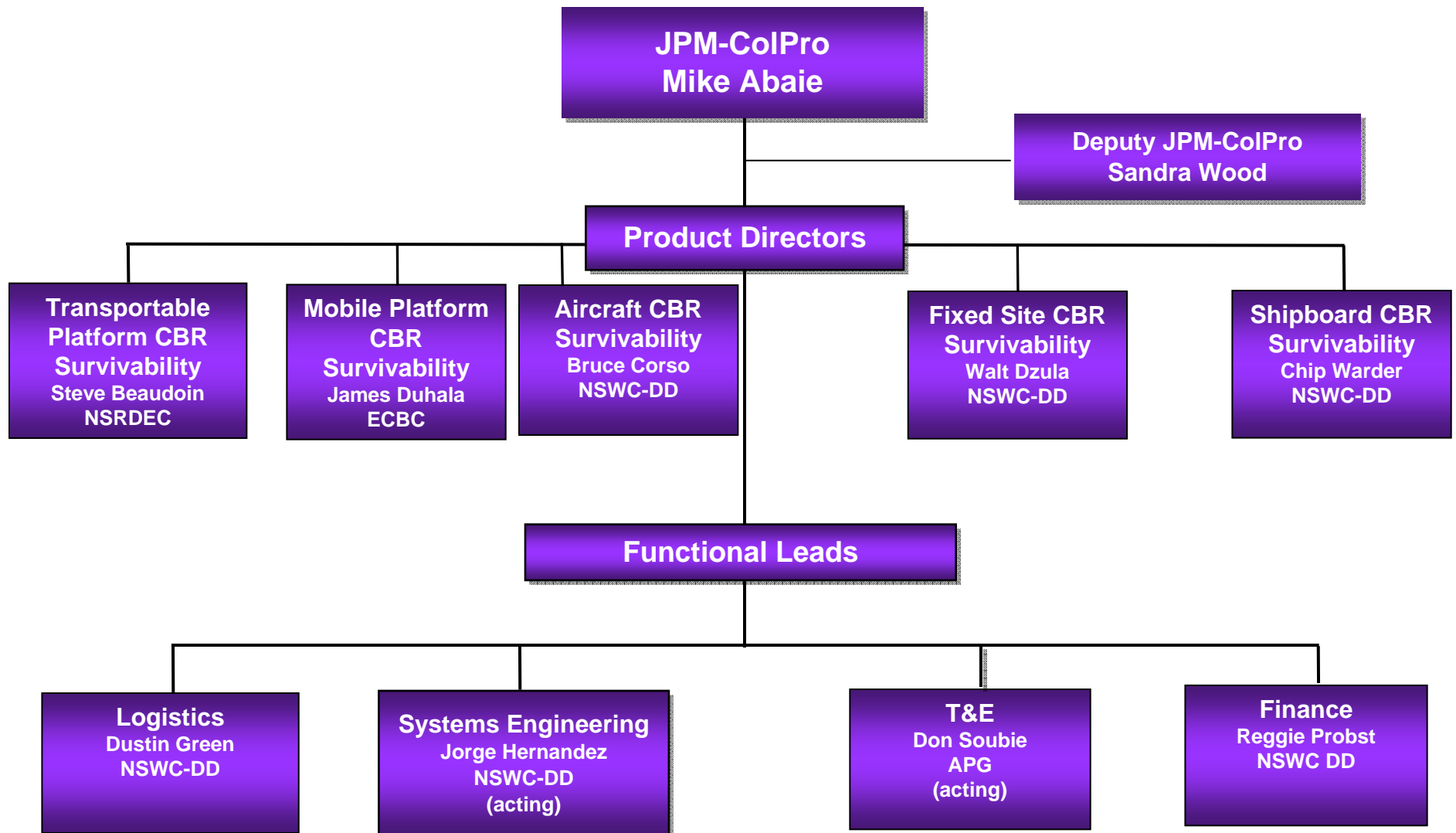
# MDAP Support Strategy







## Collective Protection/Platform Survivability Integration Joint Project Management Office

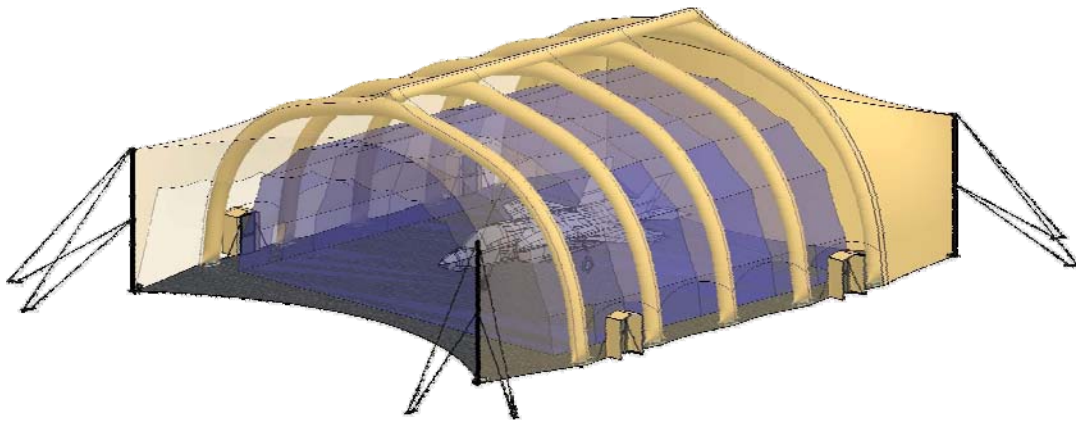


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# CBR Capability Set Example

## Joint Strike Fighter CBR Capability Set



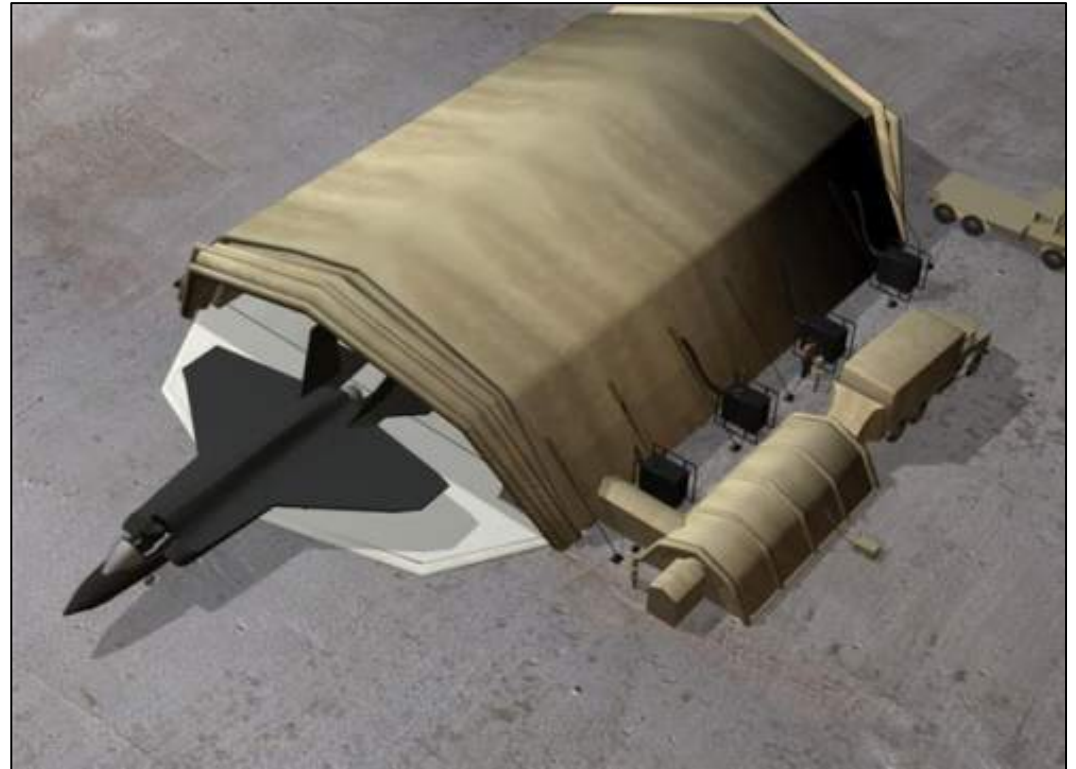
**CBR Subsystem - Decon Shelter.  
JPM-ColPro, JPM-Decon support**



**CBR Component – JPM-IP Support**



# ***Joint Strike Fighter Decontamination System***



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## ***JSF Decon System Background***

- JSF requires pilot CBR survivability CBR decontamination
- JSF CBR survivability support is being coordinated through the JPEO-CBD
- JPM-Decontamination is the lead for the Decon system
  - Environmentally Friendly Aircraft Decon System (EFADS)
- JPM-ColPro supporting
  - Shelter/liner system
  - Interface with EFADS
  - Heaters for Hot Air Decon



## ***Environmentally Friendly Aircraft Decontamination System (EFADS)***



- **Chemical Decontamination**
  - Hot Air Decontamination (HAD)
  - Chemical Filtration included



- **Biological Decontamination**
  - Vaporous Hydrogen Peroxide (VHP)
  - Catalytic destroyer



## ***JSF Decon Shelter Requirements***

- Sized to accommodate the JSF Aircraft
- Incorporate a chemical agent resistant liner compatible with VHP and HAD decon processes
- Compatible with negative pressure operation
- Interface with the decontamination equipment
- Thermal insulation to minimize heat loss during HAD
- Minimize air leakage into the liner
- Minimize electric power and manpower required for setup and operation
- Allow personnel entry/exit during operation
- Withstand power loss of 8 hours
- Withstand wind and snow loads

**Utilize  
Existing  
Technology**





## Aviation Inflatable Maintenance Shelter 2<sup>nd</sup> Generation (AIMS-2G)



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## Aviation Inflatable Maintenance Shelter 2nd Generation (AIMS-2G)

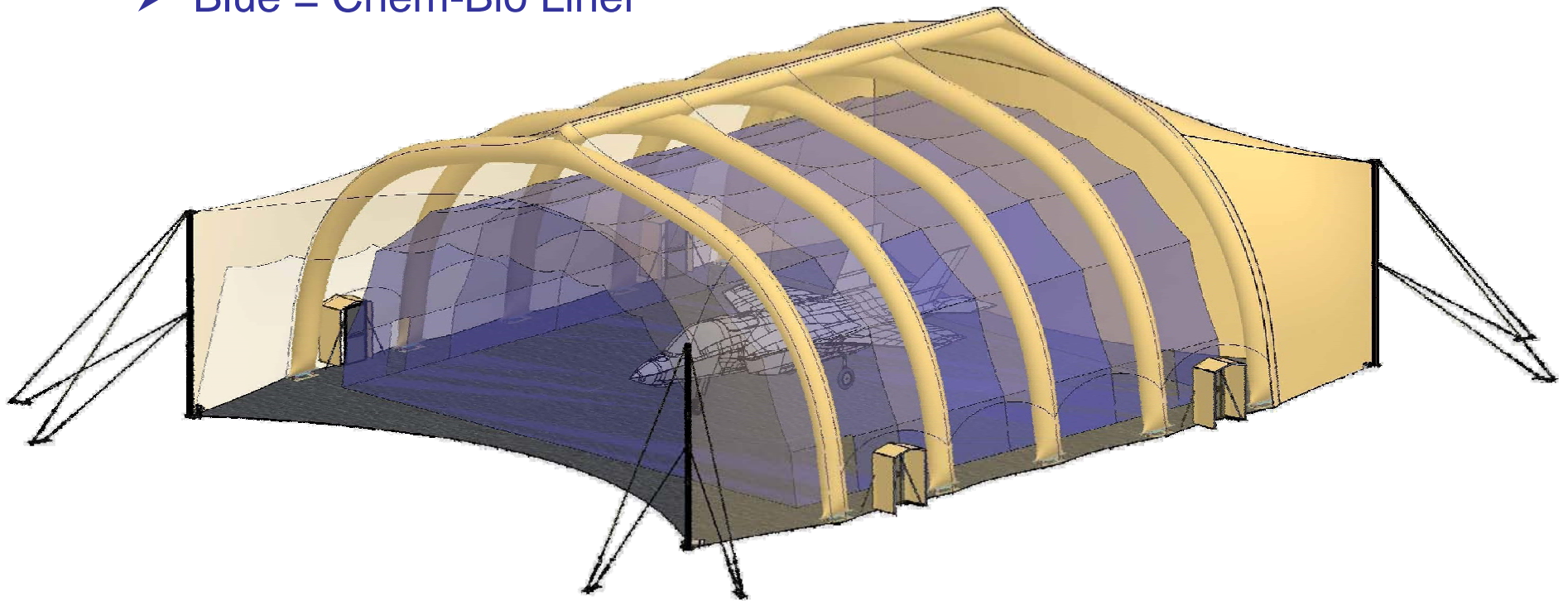


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## AIMS-2G JSF Decontamination Shelter

- Conceptual adaptation of baseline AIMS 2G to JSF Decon Shelter
  - Tan = Outer Cover
  - Blue = Chem-Bio Liner



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## JSF Decon Shelter Team

- JPM-Decon
- JPM-ColPro
- JPM-Platform Survivability Integration
- NSRDEC
- ECBC
- Vertigo
- Production Products
- Hunter Defense Engineering Services
- STERIS



# Questions?